[4910-13-U]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [66 FR 13229 3/5/2001]

[Docket No. 2001-NM-13-AD; Amendment 39-12127; AD 2001-04-08]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 737-600, -700, -800, and -700C Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that is applicable to certain Boeing Model 737-600, -700, -800, and -700C series airplanes. This action requires initial and repetitive inspections of the elevator tab assembly to detect any damage or discrepancy; and corrective actions, if necessary. This action is necessary to prevent excessive in-flight vibrations of the elevator tab, which could lead to loss of the elevator tab and reduced controllability of the airplane. This action is intended to address the identified unsafe condition.

DATES: Effective March 20, 2001.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of March 20, 2001.

Comments for inclusion in the Rules Docket must be received on or before May 4, 2001.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 2001-NM-13-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056. Comments may be inspected at this location between 9:00 a.m. and 3:00 p.m., Monday through Friday, except Federal holidays. Comments may be submitted via fax to (425) 227-1232. Comments may also be sent via the Internet using the following address: 9-anm-iarcomment@faa.gov. Comments sent via fax or the Internet must contain "Docket No. 2001-NM-13-AD" in the subject line and need not be submitted in triplicate. Comments sent via the Internet as attached electronic files must be formatted in Microsoft Word 97 for Windows or ASCII text.

The service information referenced in this AD may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Nancy Marsh, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2028; fax (425) 227-1181.

SUPPLEMENTARY INFORMATION: The FAA has received numerous reports of excessive in-flight vibrations of the elevator tab on Model 737-600, -700, and -800 series airplanes. These vibration events have been attributed to loose or missing components, excessive wear, or excessive freeplay of the tab. Elevator tab vibrations can result from wear to the elevator tab hinges and components of the elevator tab control system. Such wear can cause the elevator tab assemblies to become loose. Increased exposure to spoiler buffeting can cause premature wear to the elevator tab components. Continued operation of these airplanes in such conditions could lead to loss of the elevator tab and reduced controllability of the airplane.

Explanation of Relevant Service Information

The FAA has reviewed and approved Boeing Alert Service Bulletin 737-55A1072, Revision 1, including Appendix A, dated January 11, 2001. The inspection procedures specified in this service bulletin are listed in Table 1:

Table 1. Inspection Procedures

Work Package	Action Specified	Figure
I	Initial and repetitive detailed visual inspections of the following:	
	• Elevator tab aerodynamic surfaces.	1.
	• Attachment of the elevator tab assembly at four hinge locations.	1.
	• Attachment of the elevator tab control rods to the elevator tab mast fitting.	1.
	Note: The service bulletin recommends scheduling the repetitive inspections to coincide with the inspections specified in Work Packages II and III.	
II	One-time free-play inspections of the following:	
	• Elevator tab hinges 1 through 4.	2.
	• Elevator tab lug assembly of all four elevator tab hinges.	2.
	• Elevator tab trailing edge.	2.
	• Elevator tab axial.	2.
	• Elevator tab control mechanism to the horizontal stabilizer, elevator front spar, and elevator tab control rods.	3.
	• Elevator tab control rods to the elevator tab mast fitting/tab rod adjustment lock nut.	3.
III	Repetitive free-play inspections of the following:	
	• Elevator tab hinge (all four elevator tab hinges).	2.
	• Elevator tab lug assembly (hinge 1 of the elevator tab).	2.
	• Elevator tab trailing edge.	2.
	• Elevator tab axial.	2.

In addition, the service bulletin specifies corrective actions that include, among other things, follow-on inspections; replacing, reworking, repairing, and lubricating parts; applying inspection putty; cleaning; and aligning and torqueing components. Procedures also specify the replacement of any damaged or discrepant part with a new part, or repair, as applicable. Discrepancies include loose or missing parts or excessive wear.

The elevator tab assembly on Model 737-700C series airplanes is identical to those installed on Model 737-600, -700, and -800 series airplanes. Therefore, Model 737-700C series airplanes may be subject to the same unsafe condition revealed on Model 737-600, -700, and -800 series airplanes. Model 737-700C series airplanes are included in paragraph 1.A. (Effectivity) of the service bulletin.

Explanation of the Requirements of the Rule

Since an unsafe condition has been identified that is likely to exist or develop on other airplanes of the same type design, this AD is being issued to prevent excessive in-flight airframe vibrations of the elevator tab, which could lead to loss of the elevator tab and reduced controllability of the airplane. This AD requires initial and repetitive inspections of the elevator tab assembly to detect any damage or discrepancy; and corrective actions, if necessary.

The FAA has determined that the actions required by this AD are necessary to ensure the integrity of the elevator tab and the continued safe operation of the Model 737 next-generation fleet, until a newly designed elevator tab can be retrofitted onto the affected airplanes.

This AD requires doing the actions specified in the service bulletin described previously, except as discussed below.

Differences

Operators should note the following differences between the service bulletin and this AD:

- Although the service bulletin recommends doing the one-time free-play inspections specified in Work Package II, "within 120 days from date of service bulletin, or at 750 total flight cycles, whichever is later," the FAA has determined that an interval of 120 days would not address the identified unsafe condition in a timely manner. In developing an appropriate compliance time for this AD, the FAA considered not only the manufacturer's recommendation, but the degree of urgency associated with addressing the subject unsafe condition, the average utilization of the affected fleet, and the time necessary to perform the one-time inspections (13 hours). In light of these factors, we find a 90-day compliance time for completing the required actions to be warranted, in that it represents an appropriate interval of time allowable for affected airplanes to continue to operate without compromising safety. In addition, it is necessary to require these actions "after the effective date of this AD" rather than "from date of the service bulletin." These changes are included in paragraph (a) of this AD, accordingly.
- Although the service bulletin uses the term "check" for certain inspections, this AD uses the term "inspection" instead.
- Although the service bulletin specifies that the manufacturer may be contacted for disposition of certain repair conditions, this AD would require the repair of those conditions to be accomplished per a method approved by the FAA.

Explanation of Compliance Time for Work Package III

The compliance time for Work Package III is 1,500 flight hours or 750 flight cycles after doing the actions specified in Work Package II. (Work Package II has a compliance time of 90 days or 750 total flight cycles after airplane delivery.) The inspections and corrective actions specified in Work Package III and Figure 2 of the service bulletin include only some of the actions specified in Work Package II and Figures 2 and 3 of the service bulletin. As a result, because the actions specified in Work Package III are less work-intensive than those actions in Work Package II, the FAA considers that the longer compliance time for Work Package III would provide an acceptable level of safety.

Interim Action

This is interim action. The manufacturer has advised that it currently is developing a modification that will positively address the unsafe condition addressed by this AD. Once this modification is developed, approved, and available, the FAA may consider additional rulemaking.

Determination of Rule's Effective Date

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

Although this action is in the form of a final rule that involves requirements affecting flight safety and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on this rule. Interested persons are invited to comment on this rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified under the caption "ADDRESSES." All communications received on or before the closing date for comments will be considered, and this rule may be amended in light of the comments received. Factual information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether additional rulemaking action would be needed.

Submit comments using the following format:

- Organize comments issue-by-issue. For example, discuss a request to change the compliance time and a request to change the service bulletin reference as two separate issues.

- For each issue, state what specific change to the AD is being requested.
- Include justification (e.g., reasons or data) for each request.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this AD will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this rule must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 2001-NM-13-AD." The postcard will be date stamped and returned to the commenter.

Regulatory Impact

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and that it is not a "significant regulatory action" under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, may be obtained from the Rules Docket at the location provided under the caption "ADDRESSES."

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "av-info.faa.gov"

2001-04-08 BOEING: Amendment 39-12127. Docket 2001-NM-13-AD.

Applicability: Model 737-600, -700, -800, and -700C series airplanes, as listed in Boeing Alert Service Bulletin 737-55A1072, Revision 1, including Appendix A, dated January 11, 2001; certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (e) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent excessive in-flight vibrations of the elevator tab, which could lead to loss of the elevator tab and reduced controllability of the airplane, do the following:

Initial and Repetitive Inspections, and Corrective Actions (Work Package I)

(a) Within 30 days or 100 flight cycles after the effective date of this AD, whichever occurs later: Inspect the elevator tab, as specified in the Accomplishment Instructions for Work Package I of Boeing Alert Service Bulletin 737-55A1072, Revision 1, including Appendix A, dated January 11, 2001, to detect any damage or discrepancy per the service bulletin.

(1) If no damage or discrepancy (including loose or missing parts, or excessive wear) is found, repeat the inspections required by paragraph (a) of this AD thereafter at intervals not to exceed 250 flight cycles.

(2) Except as provided by paragraph (d) of this AD, if any damage or discrepancy is found, before further flight, do the corrective actions (including follow-on inspections; replacing, reworking, repairing, and lubricating parts; applying inspection putty; cleaning; and aligning and torqueing components) specified in Figure 1 of the service bulletin, as applicable. Repeat the inspections required by paragraph (a) of this AD thereafter at intervals not to exceed 250 flight cycles.

One-Time Freeplay Inspections and Corrective Actions (Work Package II)

(b) Within 90 days after the effective date of this AD, or before the accumulation of 750 total flight cycles after airplane delivery, whichever occurs later: Do the one-time free-play inspections of the elevator tab, as specified in the Accomplishment Instructions for Work Package II of Boeing Alert Service Bulletin 737-55A1072, Revision 1, including Appendix A, dated January 11, 2001, to detect any damage or discrepancy per the service bulletin.

(1) If no damage or discrepancy is found, no further action is required by this paragraph.

(2) If any damage or discrepancy is found, before further flight, do the corrective actions specified in Figures 2 and 3 of the service bulletin, as applicable.

Repetitive Inspections and Corrective Actions (Work Package III)

(c) Within 1,500 flight hours or 750 flight cycles, whichever occurs earlier, after doing Work Package II: Inspect the elevator tab, as specified in the Accomplishment Instructions for Work Package III of Boeing Alert Service Bulletin 737-55A1072, Revision 1, including Appendix A, dated January 11, 2001, to detect any damage or discrepancy per the service bulletin.

(1) If no damage or discrepancy is found, repeat the inspections required by paragraph (c) of this AD thereafter at intervals not to exceed 1,500 flight hours or 750 flight cycles, whichever occurs earlier.

(2) If any damage or discrepancy is found, before further flight, do the applicable corrective actions specified in Figure 2, as specified by the Accomplishment Instructions for Work Package III, of the service bulletin.

Repair

(d) Repair any damage or discrepancy of the elevator tab assembly that is outside the limits specified by the Accomplishment Instructions of Boeing Alert Service Bulletin 737-55A1072, Revision 1, including Appendix A, dated January 11, 2001, per a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA, or per data meeting the type certification basis of the airplane approved by a Boeing Company Designated Engineering Representative (DER) who has been authorized by the Manager, Seattle ACO, to make such findings. For a repair method to be approved by the Manager, Seattle ACO, as required by this paragraph, the Manager's approval letter must specifically reference this AD.

Alternative Methods of Compliance

(e) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Seattle ACO. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

NOTE 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

Special Flight Permits

(f) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be done.

Incorporation by Reference

(g) Except as provided by paragraph (d) of this AD, the actions shall be done in accordance with Boeing Alert Service Bulletin 737-55A1072, Revision 1, including Appendix A, dated January 11, 2001. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

Effective Date

(h) This amendment becomes effective on March 20, 2001.

FOR FURTHER INFORMATION CONTACT: Nancy Marsh, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2028; fax (425) 227-1181.

Issued in Renton, Washington, on February 21, 2001.
Donald L. Riggin, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.